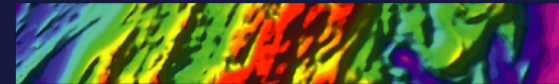


# CORPORATE PRESENTATION

May 2021

WESTERN AREAS LTD



**20**  
YEARS

# AGENDA

## CORPORATE



## GROWTH



## OPERATIONS



## NICKEL MARKET



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The information within this PowerPoint presentation was compiled by Western Areas management, but the information as it relates to exploration results, mineral resources or ore reserves was prepared by Mr Graeme Gribbin, Mr Andre Wulfse or Mr Marco Orunesu-Preiata respectively. Mr Gribbin, Mr Wulfse and Mr Orunesu-Preiata are full time employees of Western Areas Ltd. Mr Gribbin is a member of Australian Institute of Geoscientists (AIG). Mr Wulfse is a Fellow of Australian Institute of Mining and Metallurgy (AusIMM) and Mr Orunesu-Preiata is a member of Australian Institute of Mining and Metallurgy (AusIMM) and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’(2012 JORC Code). Mr Gribbin, Mr Wulfse and Mr Orunesu-Preiata consent to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.

This announcement is authorised for market release by Western Areas Limited Managing Director and CEO, Daniel Lougher.

Western Areas Registered Office: L2, 2 Kings Park Road, West Perth, 6005, Australia

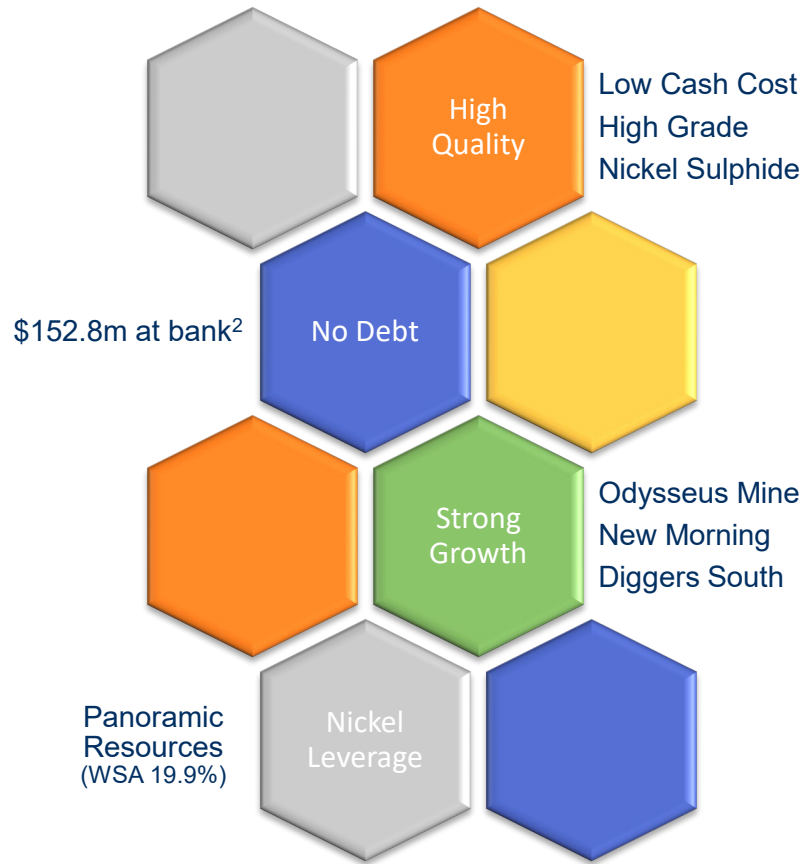


# CORPORATE



# Corporate overview

The Company aims to be a sustainable and profitable, nickel focused, base metal miner, building value and scale while maintaining financial strength



ASX code	WSA
Share price	2.42
Shares outstanding (m)	321.6
Market Cap (A\$m) <sup>1</sup>	778.2
Cash (A\$m) <sup>2</sup>	152.8

## COSMOS

### Odysseus

164kt Ni Ore Reserves  
265kt Ni Mineral Resource  
First Production CY2022

### AM6

47kt Ni Ore Reserves  
67kt Ni Mineral Resource

## FORRESTANIA

### Spotted Quoll

39.3kt Ni Ore Reserves  
56.1kt Ni Mineral Resource

### Flying Fox

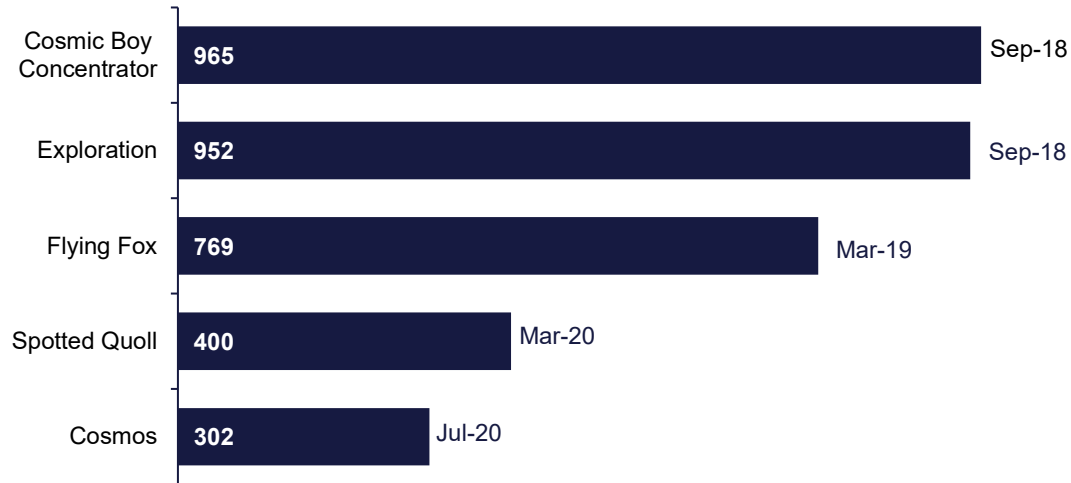
9.5kt Ni Ore Reserves  
42.7kt Ni Mineral Resource



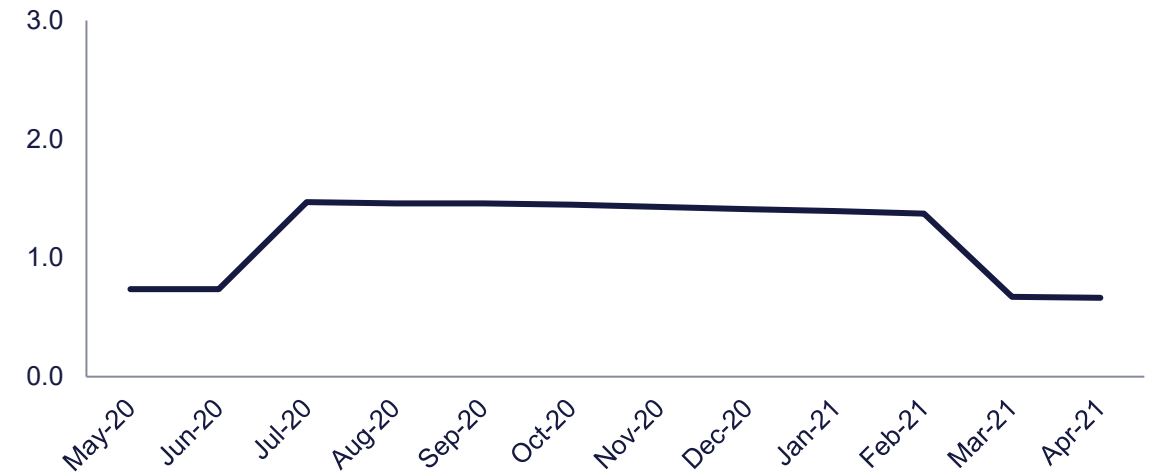
# Western Areas, are safe areas



Days LTI free



12 month LTIFR moving average

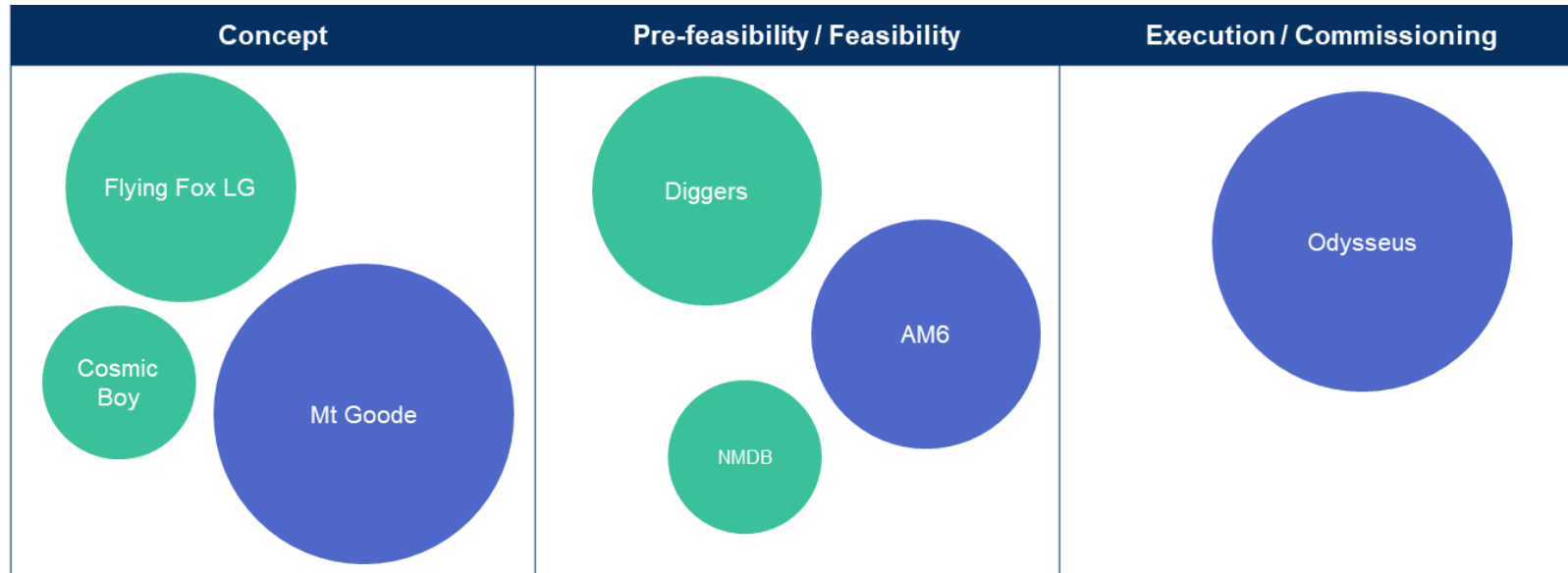




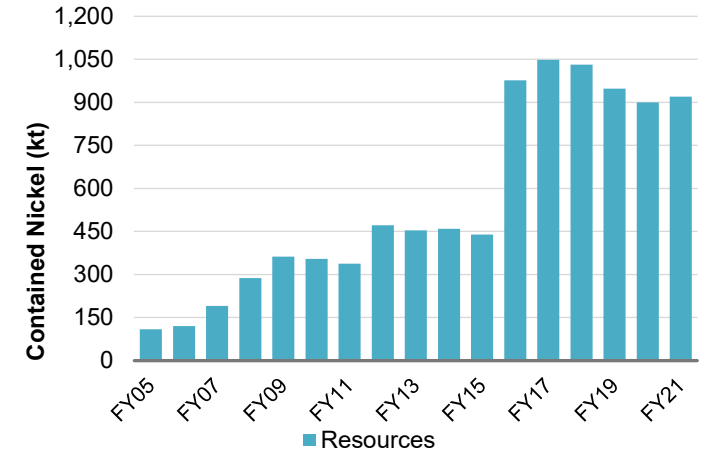
# GROWTH AND EXPLORATION



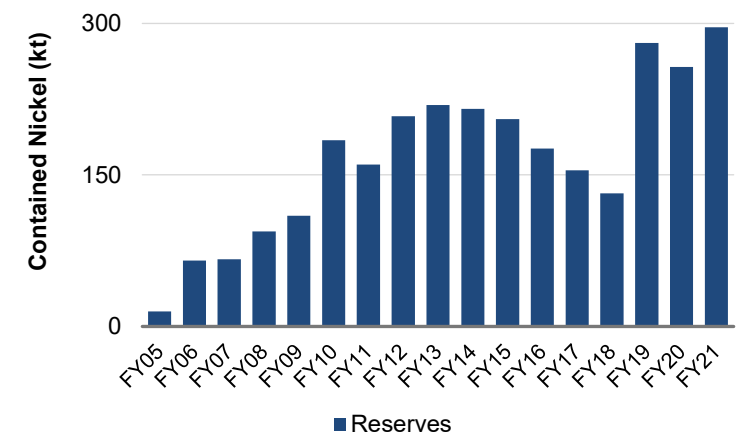
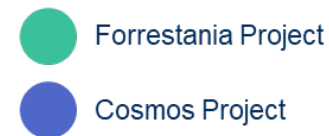
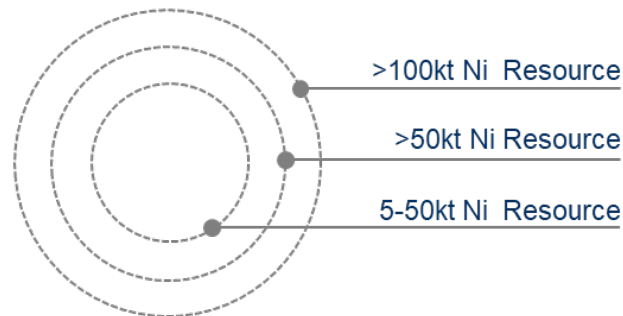
# Nickel growth pipeline



## Nickel Resources/Reserves



- Many projects in the pipeline to drive nickel production well into the future
- Ore Reserves have substantially increased in FY19 with Odysseus and in FY21 with the addition of AM6

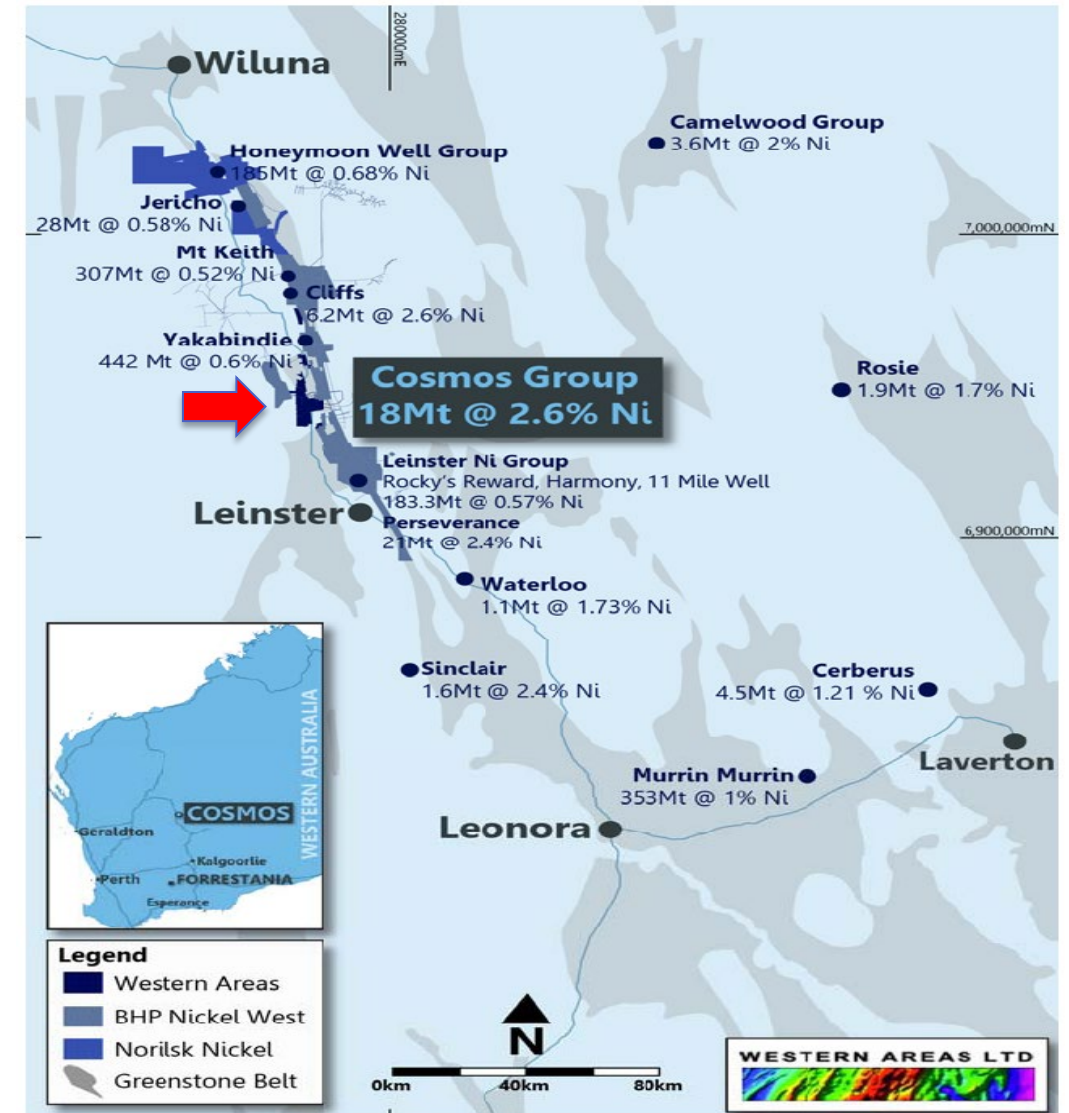




# Cosmos nickel operation – Odysseus mine

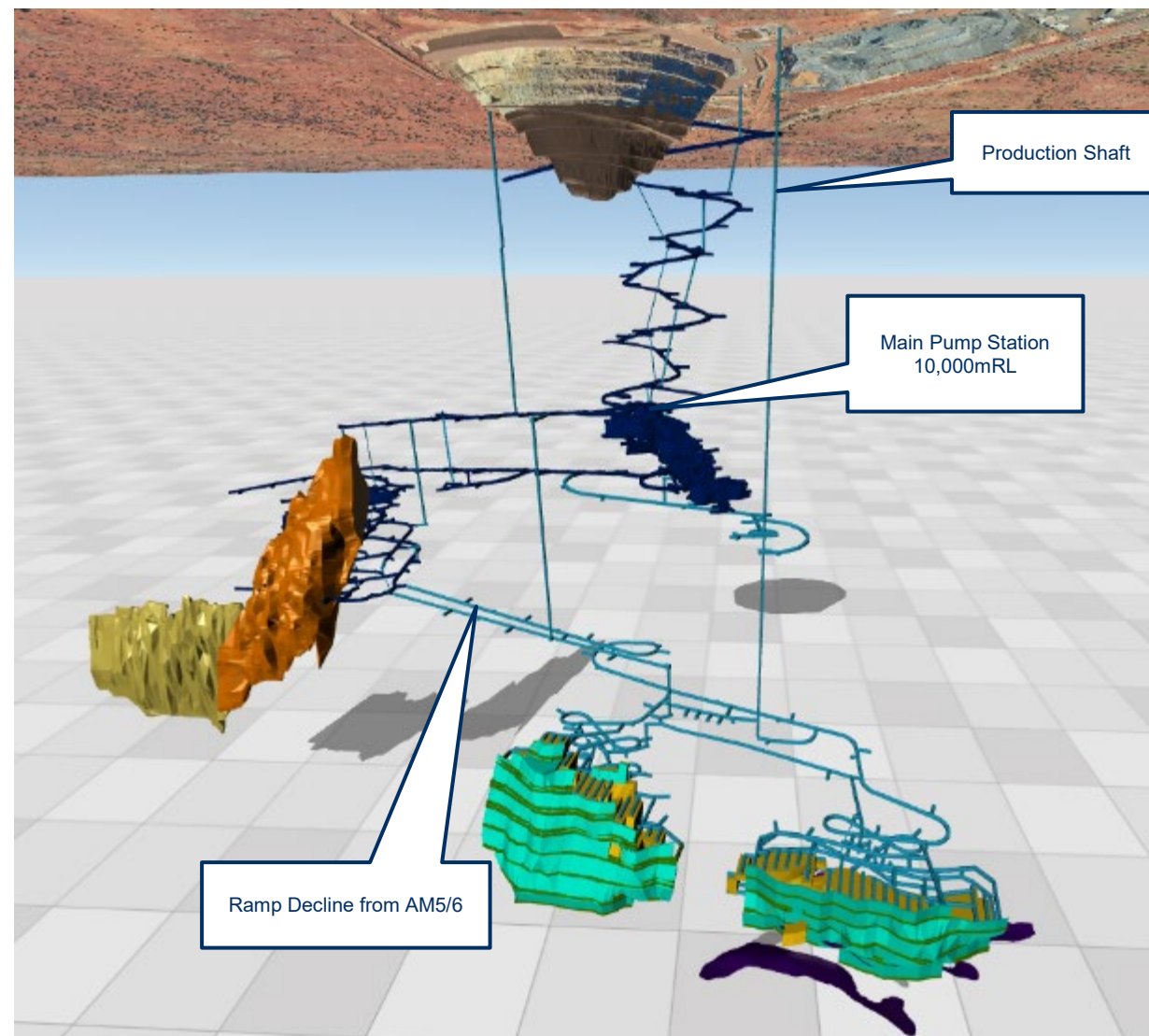
## WESTERN AREAS' SECOND OPERATIONAL HUB:

- Outstanding nickel address
- **Total Ore Reserves of 211k tonnes of nickel**
- Strategically located between Nickel West's Leinster and Mt Keith mines
- Established infrastructure



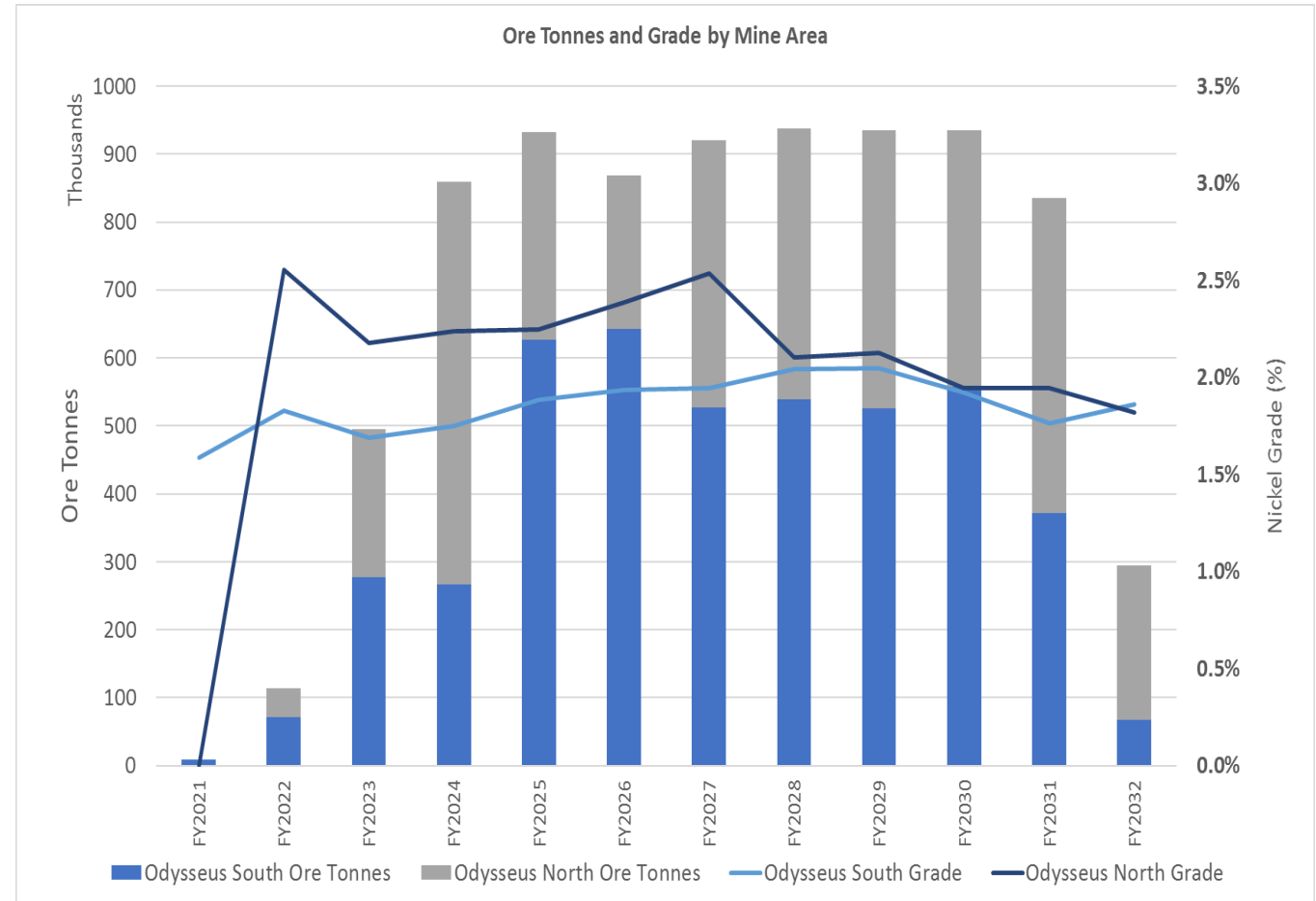
# Odysseus mine – a long life, low cost project, 10yrs +

- **Odysseus - Long life, low cost project:**
  - ✓ Ore Reserve 8.1mt @ 2.0% for 164kt nickel
  - ✓ Mine life > 10 years
  - ✓ AISC A\$3.50/lb (DFS)
  - ✓ Average nickel in concentrate production 14.5ktpa from FY24
- **AM6 now a value add:**
  - ✓ Ore Reserve 2.1mt @ 2.2% for 47kt nickel
  - ✓ Large 212kt of nickel in combined Ore Reserves, increasing mine life and capital efficiency
- **Significant upside:**
  - ✓ Record 22% Ni massive sulphide intersections in lenses below Odysseus



# Odysseus production ~900k tpa ore

- Minimum 10 year mine life on reserves (OD only)
- Annual ore production of 900kt. First ore scheduled for 3<sup>rd</sup> Q CY 2021, and first Ni concentrate late CY 2022
- Consistent annual nickel production
- Significant upside now a reality with inclusion of 47kt Ni Reserve for AM6
- Optimisation studies commenced to integrate AM6 Reserves
- 900ktpa concentrator – optimisation studies ongoing

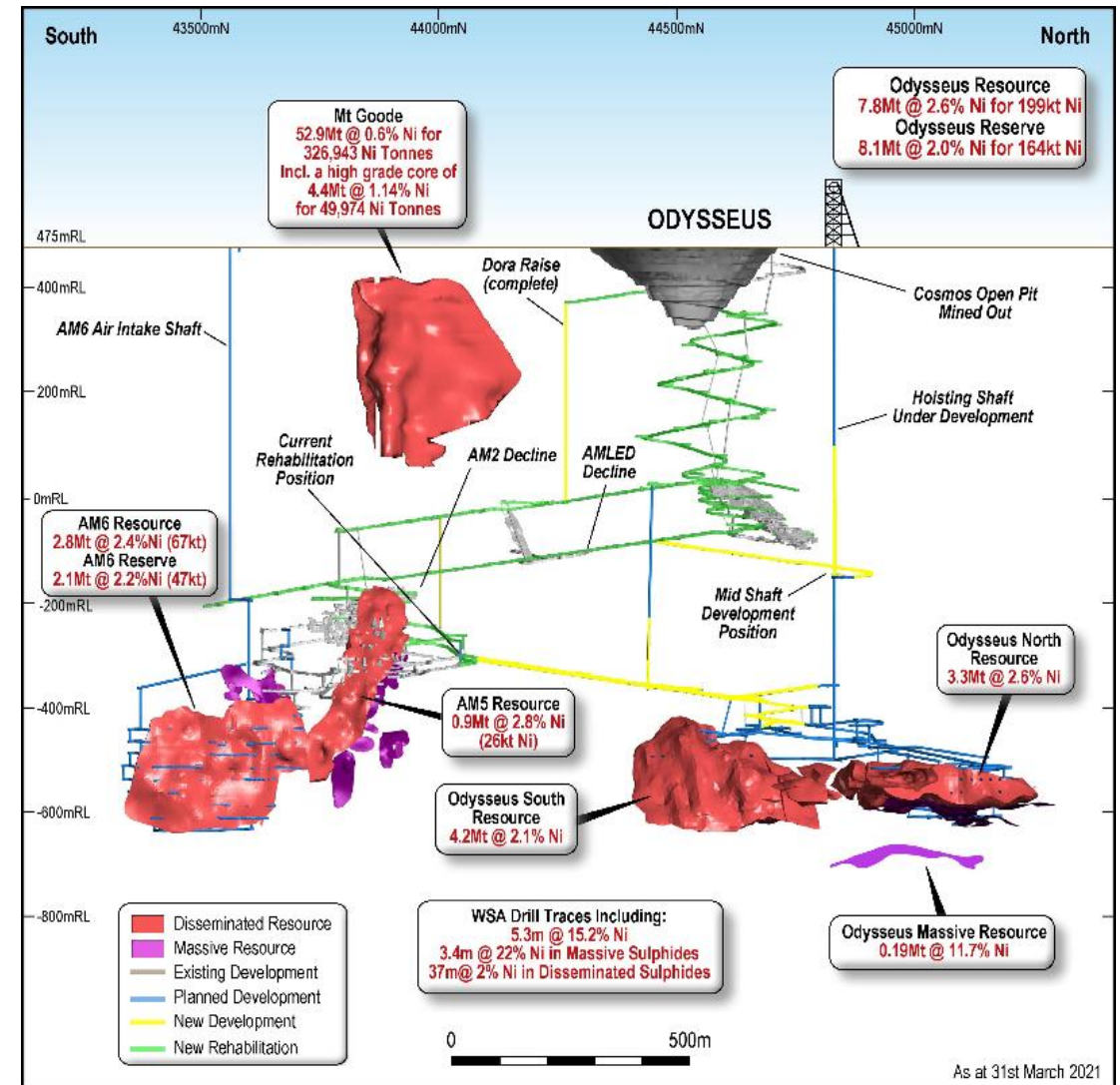




# Odysseus mine – underground development progress

## ■ Pre-production Activities:

- ✓ Headframe and winder infrastructure assets at site
- ✓ Odysseus decline development advanced +1.2km now above the Odysseus orebodies
- ✓ Hoisting shaft pilot hole completed for Leg 1 (630m). Back reaming (5.7m D) advanced +300m
- ✓ Central rise back reaming advanced 200m
- ✓ Mine development capex expenditure profile:  
FY21 – A\$90m; FY22 – A\$120m; FY23 – A\$42m
- ✓ WSA is fully funded with cash and agreed debt facilities





# Infrastructure works gaining momentum





# Why a hoisting shaft?

- Significant economical and environmental benefits versus trucking
- Combined with renewable power = energy efficient site, 85% reduction in CO<sub>2</sub>
- Low, consistent opex and proven technology
- Cycle time: ~3 mins
- Save 1.5 ML diesel burnt pa (DPM)
- Remove 5 MW of heat generated from diesel engines
- Remove minimum 200m<sup>3</sup>/s of additional ventilation requirement

## Key Metrics:

- 5.7m diam. raise bore
- 4 guide ropes per conveyance
- 1.27Mtpa (ore and waste)
- 12 t skips
- 1 truck required to feed shaft
- 4.5 MW peak power

Headframe assets  
at Cosmos ready  
for installation

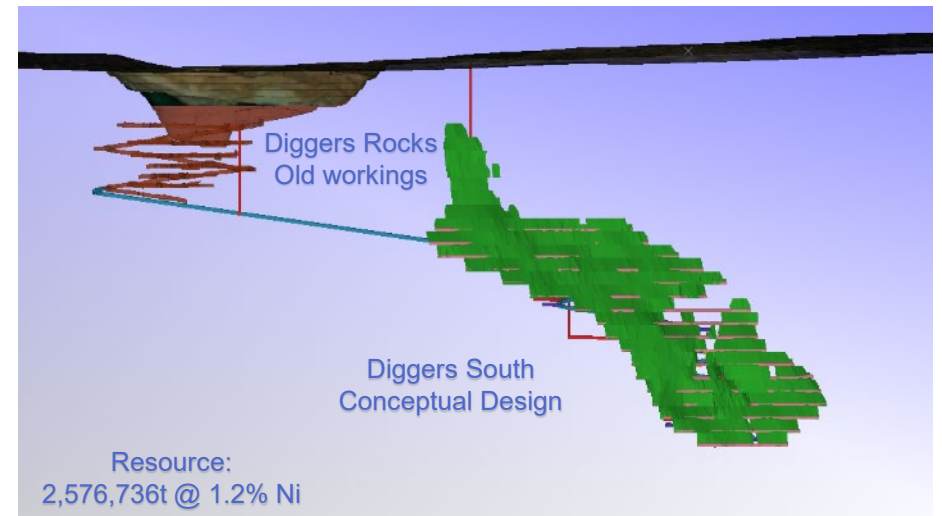
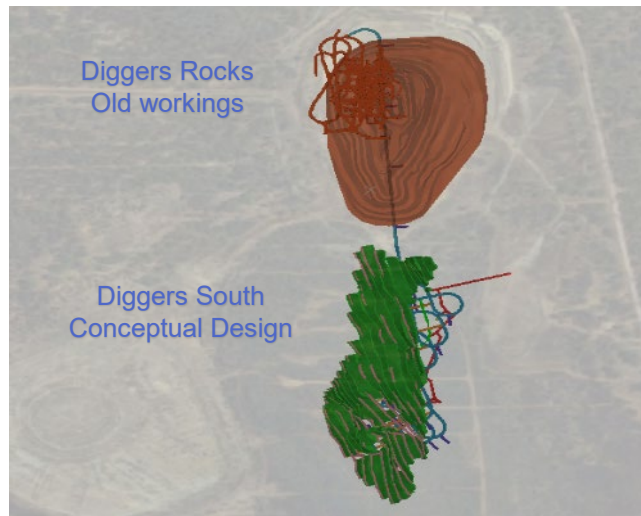
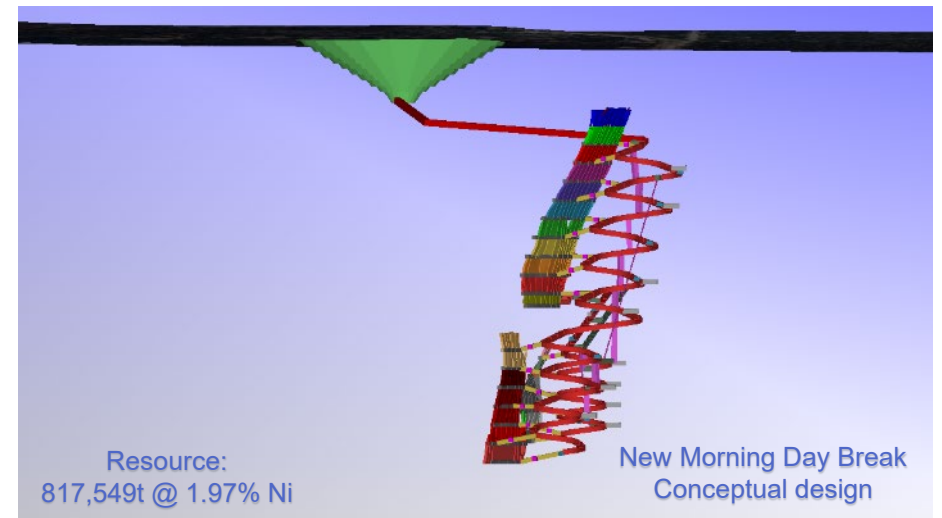




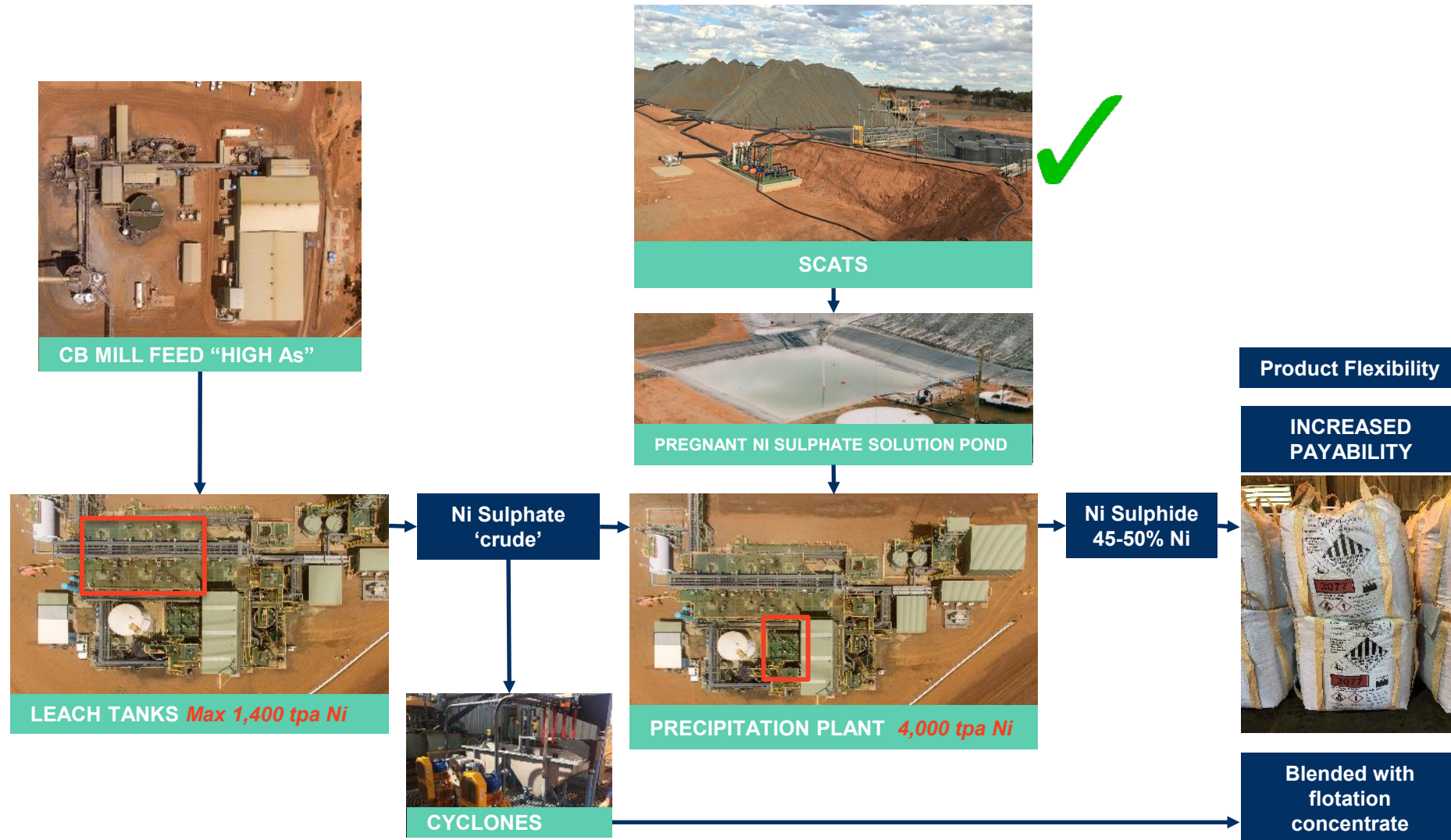
# Forrestania nickel operation – opportunities

## **WESTERN AREAS' CURRENT OPERATIONAL HUB:**

- Outstanding nickel address
- **Total Resources of 307k tonnes of nickel**
- Mining since 2005
- Established infrastructure
- Two operating mines Flying Fox and Spotted Quoll
- **New projects developing:**
  - Scats Heap Leach
- **Strong upside potential:**
  - New Morning Daybreak
  - Diggers South

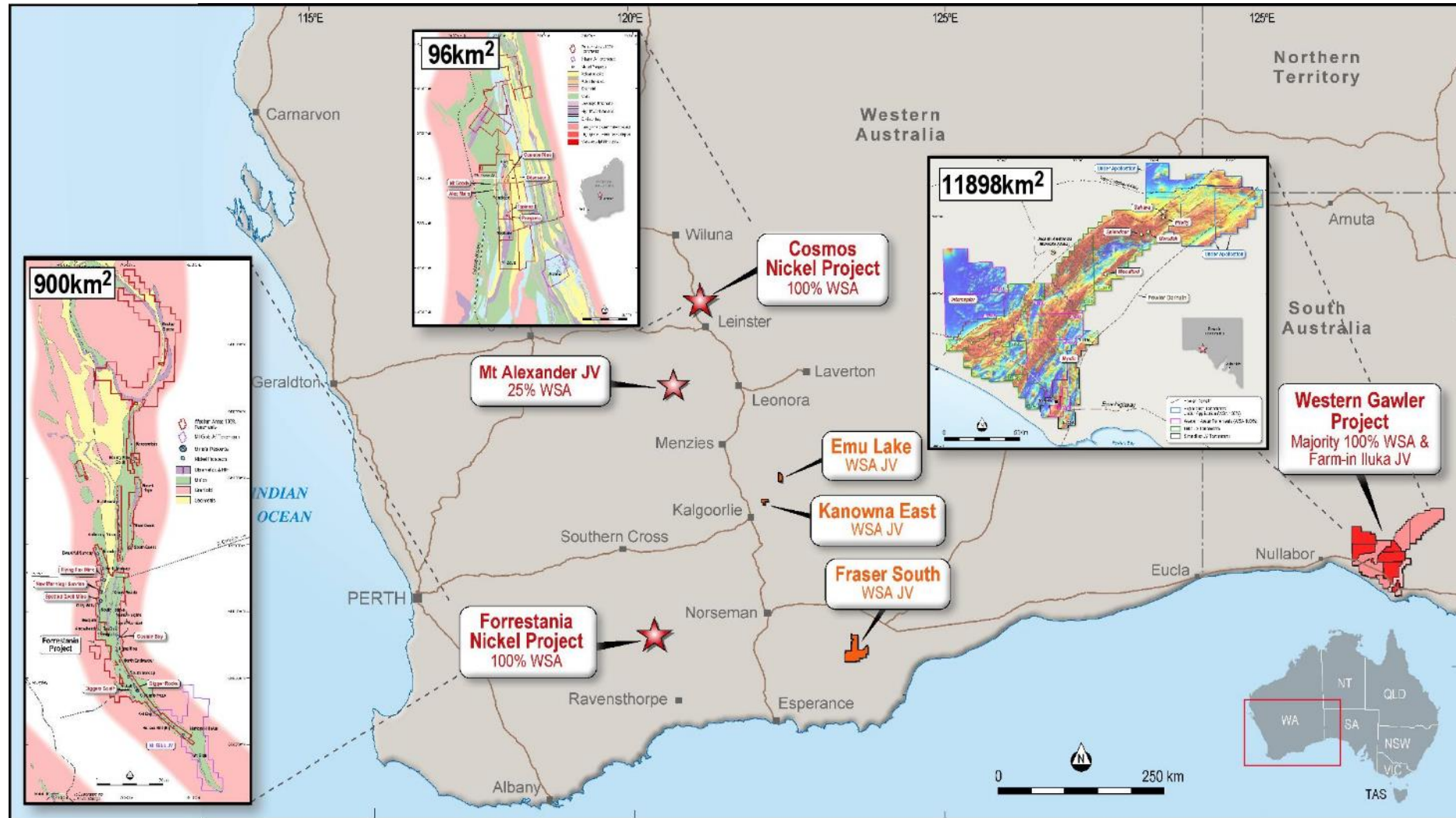


# MREP unlocks value – mill scats heap leach project





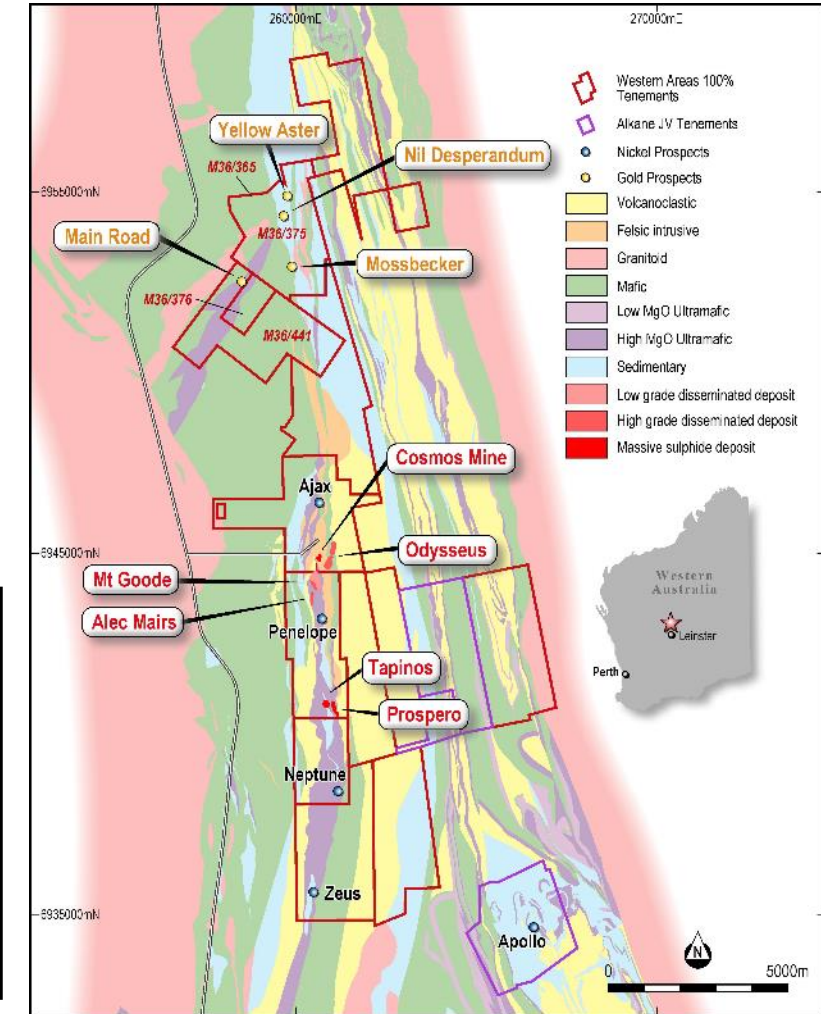
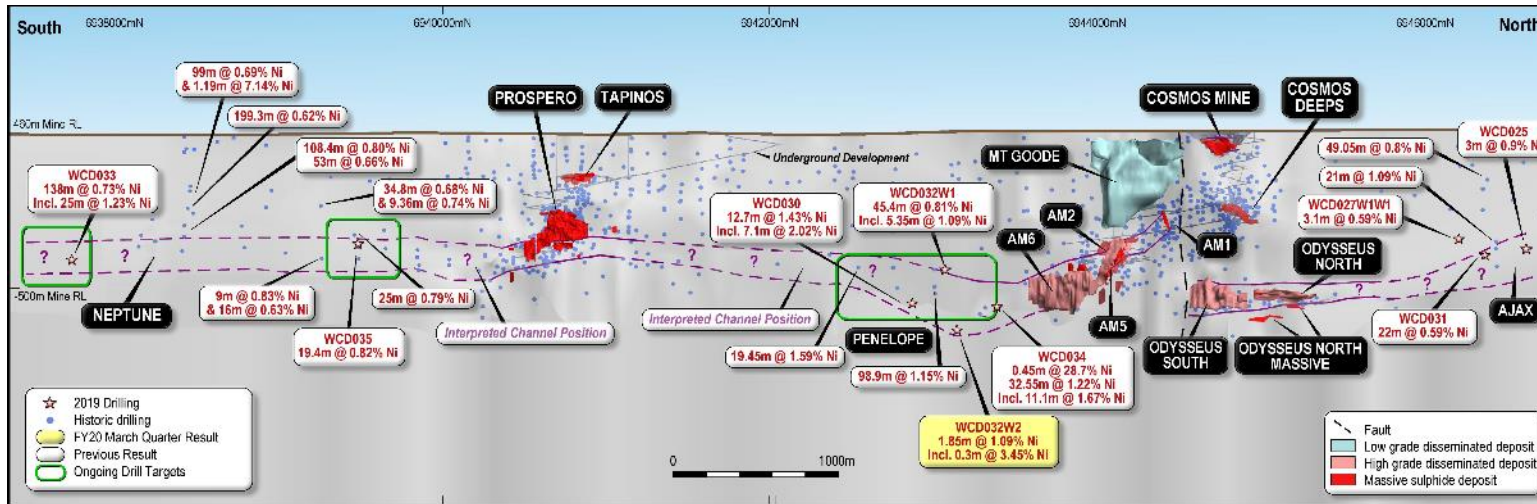
# Exploration - key tenement holdings





# Cosmos nickel exploration

> 9km of prospective host rocks

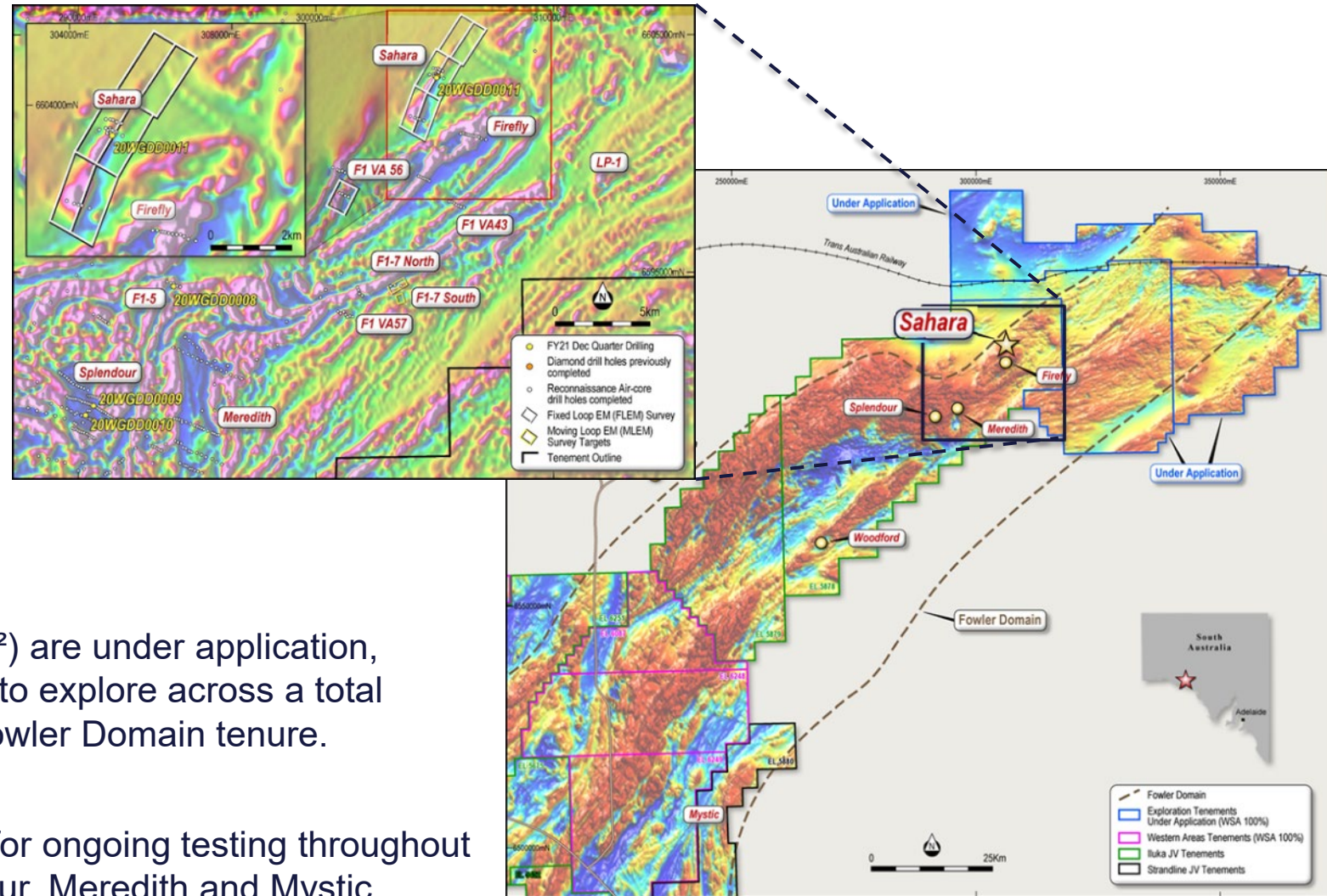


- Centred within the prolific Leinster – Wiluna Nickel corridor
- Potential for mineralisation to extend south from Alec Mairs (AM6) to Penelope.
- Underground exploration drilling underway testing the highly prospective corridor between Penelope and AM6.



# Western Gawler project (South Australia)

- Exploring within the highly prospective (Ni – Cu) Fowler Domain, with geological setting similar to districts hosting Nova-Bollinger and Nebo-Babel and Eagle Deposit (Michigan).
- Significant accumulations (over 250m) of nickel and copper bearing sulphides intersected within first diamond drill hole at the Sahara prospect (Iluka JV with WSA earning up to 75%).
- An additional three tenements (2378km<sup>2</sup>) are under application, which will allow the company the ability to explore across a total 11,898km<sup>2</sup> of contiguous prospective Fowler Domain tenure.
- Numerous interpreted intrusive targets for ongoing testing throughout FY21 including Sahara, Firefly, Splendour, Meredith and Mystic.





# Western Gawler project (South Australia)

## SAHARA (ILUKA JV) EARLY RESULTS

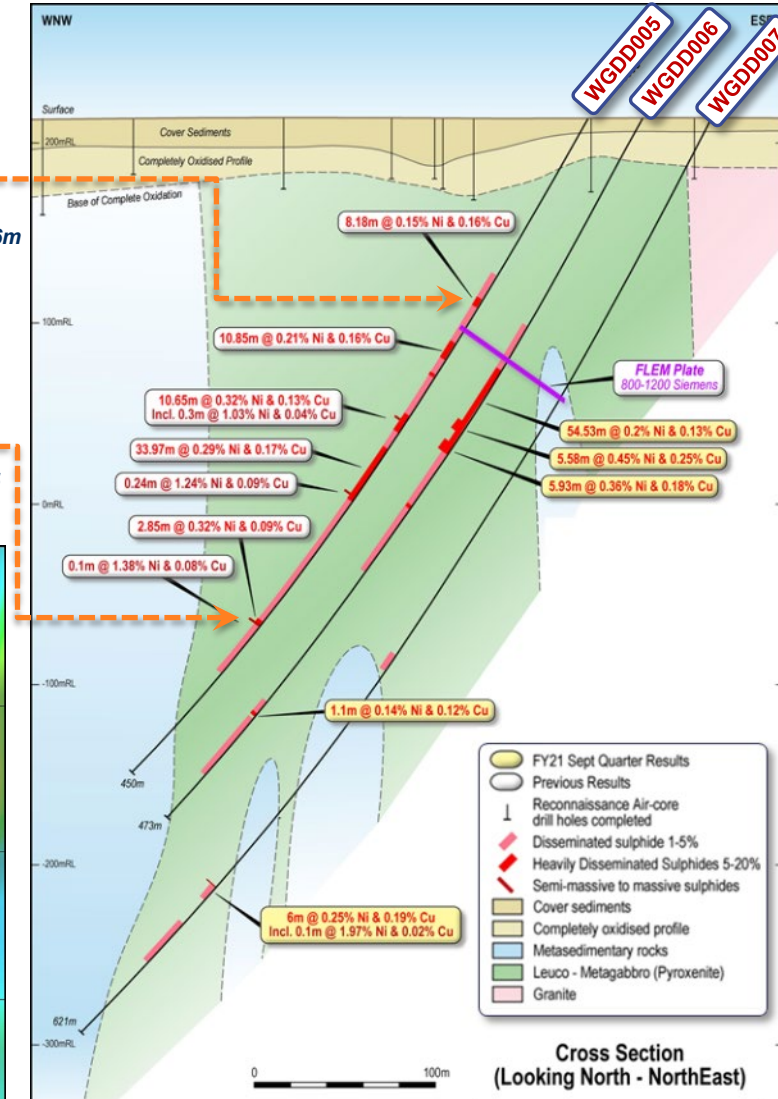
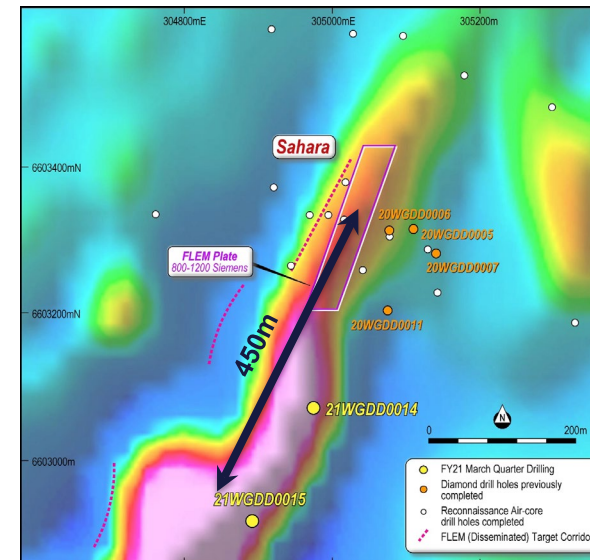
- Broad intervals of elevated nickel sulphides returned from maiden diamond hole.
  - ✓ **104.42m @ 0.21% Ni, 0.12% Cu including 33.97m @ 0.29% Ni, 0.17% Cu (within WGDD0005)**
- Additional Ni-Cu accumulations from follow-up drill holes including
  - ✓ **5.58m @ 0.45% Ni and 0.25% Cu (within WGDD0006); and**
- The 2021 drilling campaign has now commenced, designed to delineate the along strike prospectivity of the Sahara intrusive to the south.
  - ✓ Two holes completed to date
  - ✓ 60m wide disseminated sulphide zone intersected in drillhole 20WGDD0014, with additional sulphides observed in 20WGDD0015
  - ✓ Disseminated sulphides now identified along a corridor extending over 450m strike length.
  - ✓ Mineralisation open to the southwest and northeast



*Late – stage pyrrhotite – chalcopyrite vein set with disseminated sulphide at 121.6m @ 121.6m*



*Massive sulphide intersected in 20WGDD0005 (340.4 – 340.5m) grading 1.38% Ni*



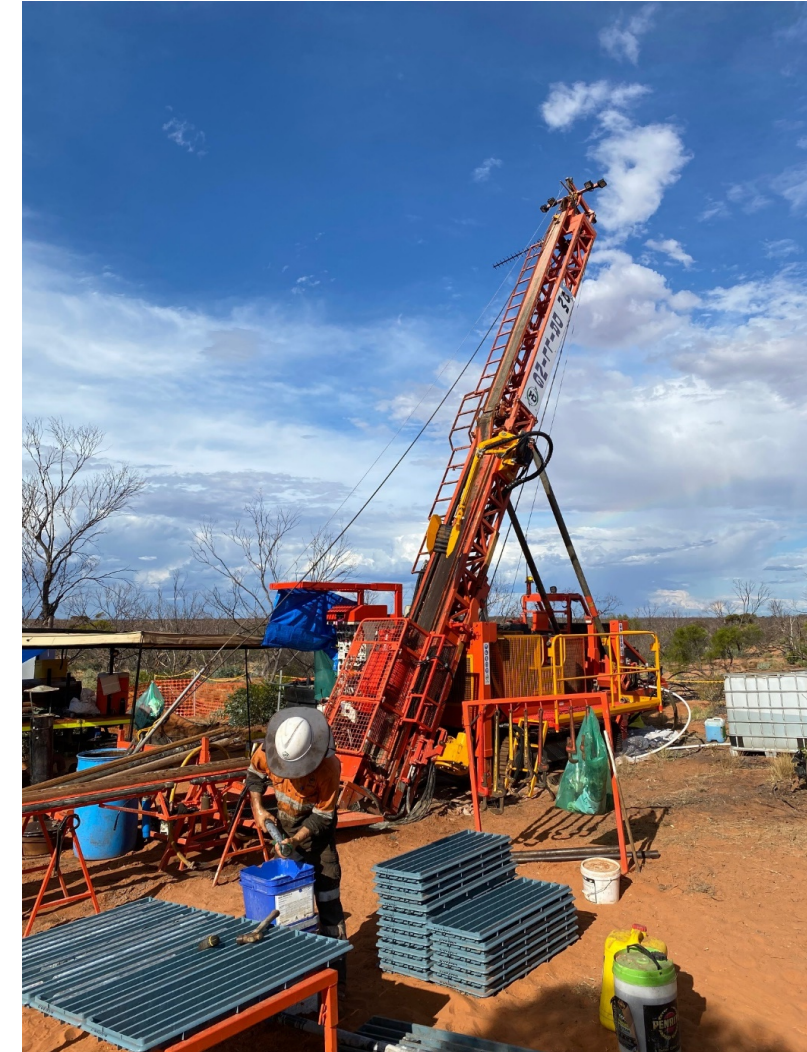
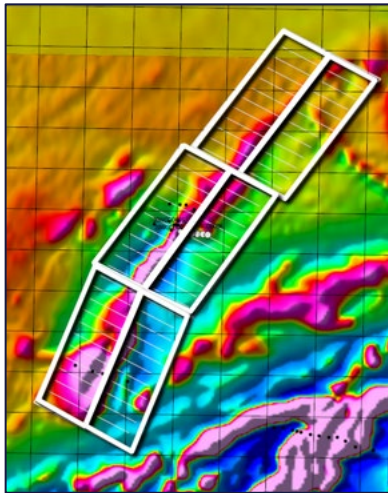


# Western Gawler project (South Australia)

## FORWARD PLAN

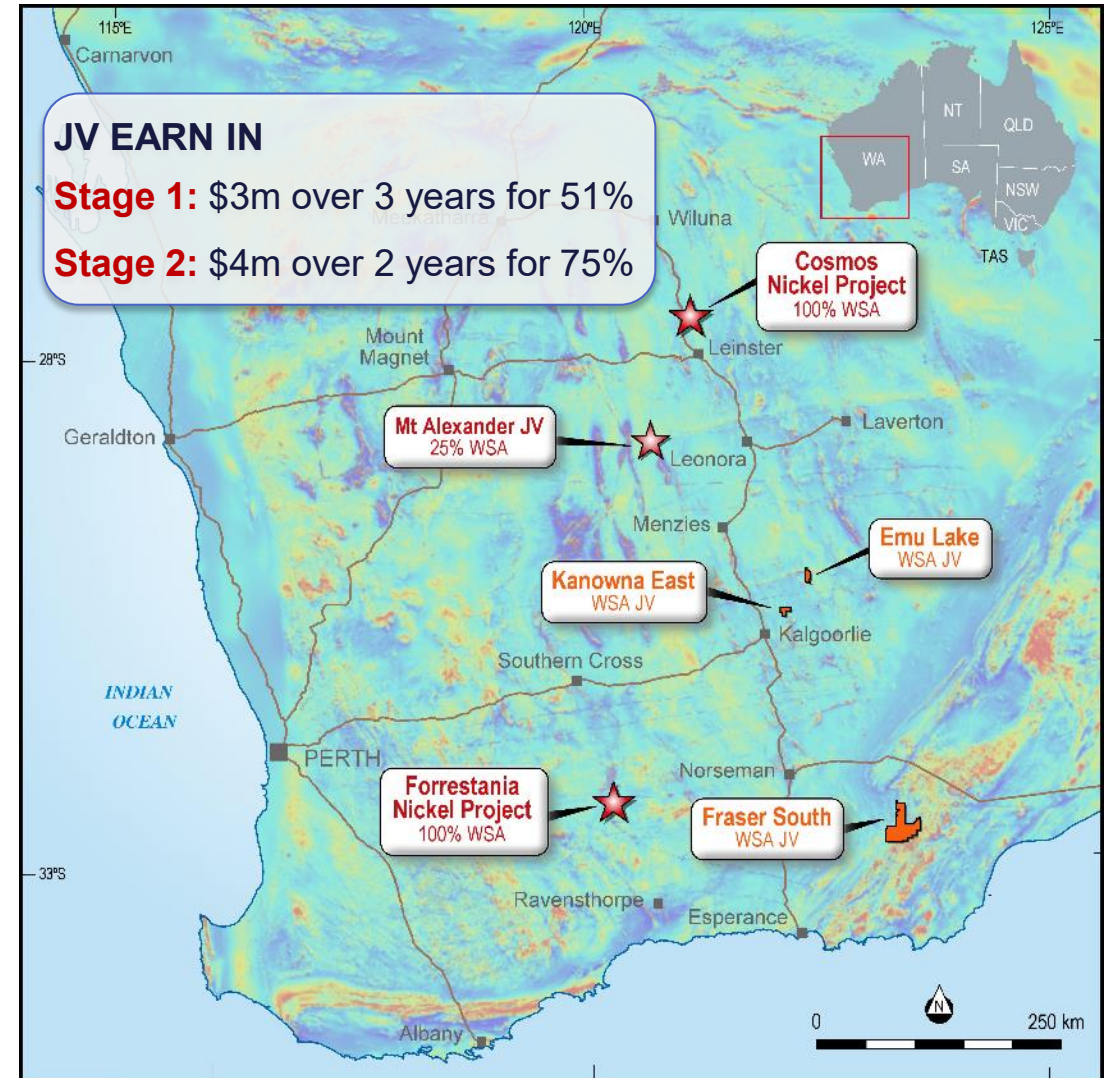
Elevated drilling and geophysical exploration program has commenced focused on:

- Advancing the geological understanding of mineralisation controls at Sahara, through detailed structural / lithological logging and petrographic analysis
  - ✓ evidence for dynamic magmatic processes vectoring towards Ni-sulphide accumulations
- Continue drill testing of the Sahara intrusive body (primarily towards the southwest), guided by downhole electromagnetic surveys.
- Progress highest priority 100% WSA held advanced target at Mystic Prospect



# Metal Hawk JV

- Western Areas has entered into a strategic partnership with Metal Hawk Ltd on highly prospective base metals tenure within both the Eastern Goldfields and Albany – Fraser
- Kanowna East (*earning in to all non-gold rights*)
  - ✓ **10km south of high-tenor Silver Swan complex**
- Emu Lake (*earning in to all non-gold rights*)
  - ✓ **Along strike from Binti Binti Nickel prospect**
- Fraser South (*earning in to all mineral rights*)
  - ✓ **Southern, underexplored structural continuation of Albany-Fraser**
- Program of Works (POW) approved for drilling programs at both Kanowna East and Emu Lake, designed to test highly prospective interpreted ultramafic corridors.





# OPERATIONS



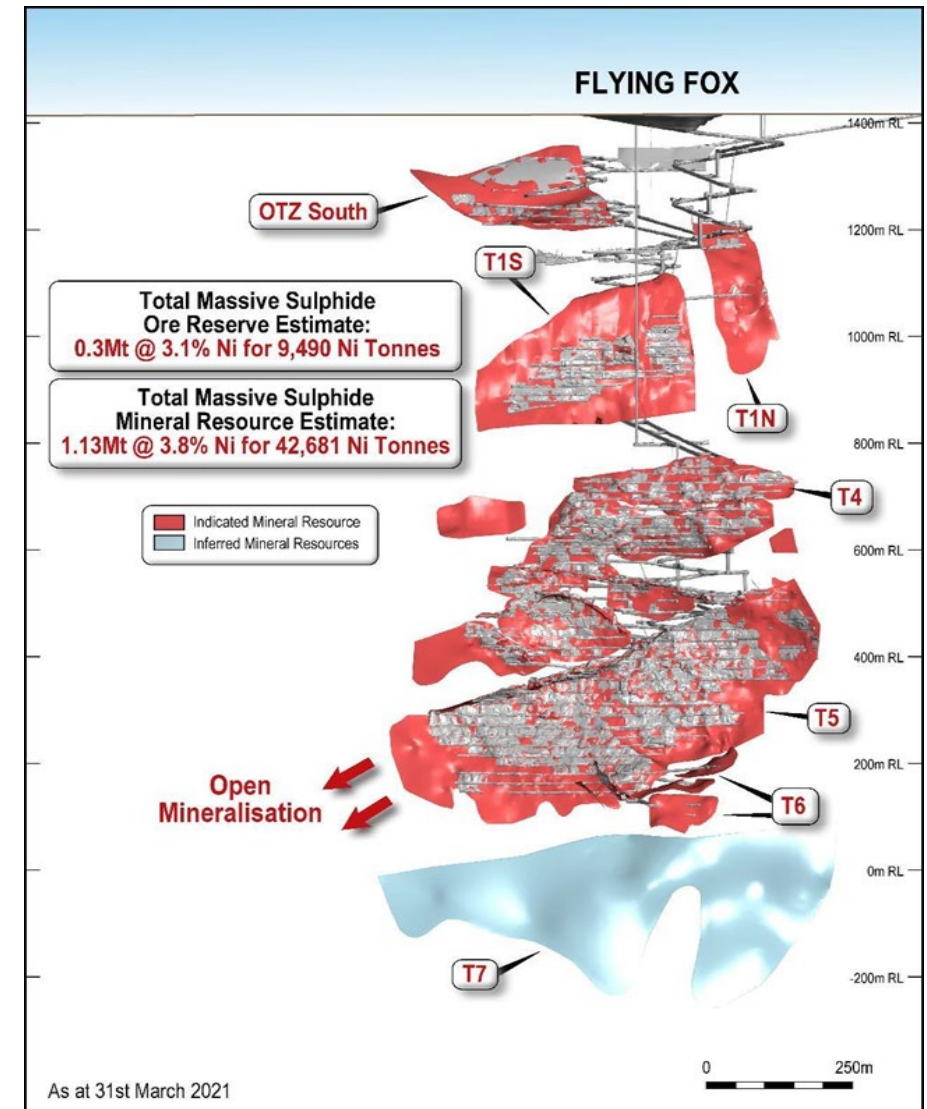


# Flying Fox mine

Reserve Contained nickel	0.34Mt @ 3.1% 10,560 Ni tonnes
Resource Contained nickel	1.15Mt @ 3.8% 43,884 Ni tonnes
Mine life (on reserves)	<2 years

## Key points:

- FY20 production – 10.1k Ni tonnes
- Has been operating for over 15 years
- Significant low grade disseminated resource

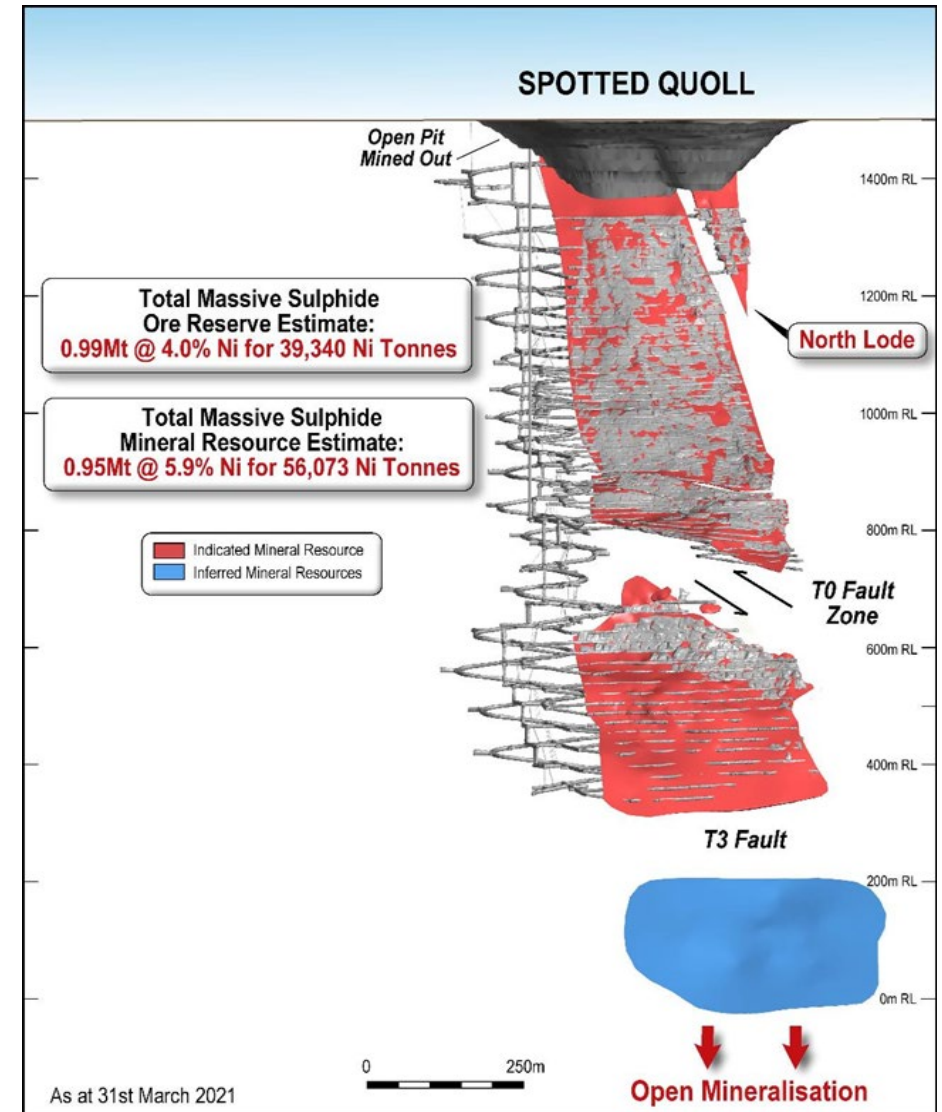


# Spotted Quoll mine

Reserve Contained nickel	1.08Mt @ 4.0% 43,140 Ni tonnes
Resource Contained nickel	1.0Mt @ 6.0% 59,456 Ni tonnes
Mine life (on reserves)	4 years

## Key points:

- FY20 production – 13.3k Ni tonnes
- Production has outperformed reserve tonnes and grade consistently
- Top down mining with paste fill
- Resource extension drilling on going – nickel tonnes being added to Resource
- 2021 marks the 10<sup>th</sup> anniversary of Spotted Quoll Underground operations



# Cosmic Boy nickel plant

## Concentrator Summary

- 12% above name plate capacity of 550,000 tpa
- Concentrate grades of between 15.0% to 16.0% Ni
  - ✓ Premium blending product (Fe/Mg ratio >15:1)
  - ✓ Desirable to smelters

## MREP Summary

- Enhances average concentrator nickel recovery and generates value from waste tailings streams
- Produces additional higher-grade product (45%-50% Ni), being sold to new, EV battery linked customers – mainly refineries
- Current contract with Sumitomo Metal Mining Co., Ltd. Combined with several spot sales to other refineries





# NICKEL MARKET



# Offtake contracts best in class

*New contracts executed with strategic partners following successful completion of a highly competitive tender process*

*Seamless transition into new contracts. Full benefit of improved commercial terms (compared to previous agreements) in FY21*

*Premium blending concentrate - superior commercial terms*

## Our Partners:

- **BHP: 50%**
  - ✓ Australia's largest nickel producer
  - ✓ Building a nickel sulphate plant in Kwinana Western Australia
- **Jinchuan: 50%**
  - ✓ China's largest nickel cathode producer
  - ✓ Direct feeder of the Chinese nickel sulphate market



*Discussion ongoing with offtake parties that are linked to the Electric Vehicle battery pre-cursor sector for future MREP production of high grade premium nickel sulphide and potential for Odysseus concentrate to feed this market.*



# What we are seeing

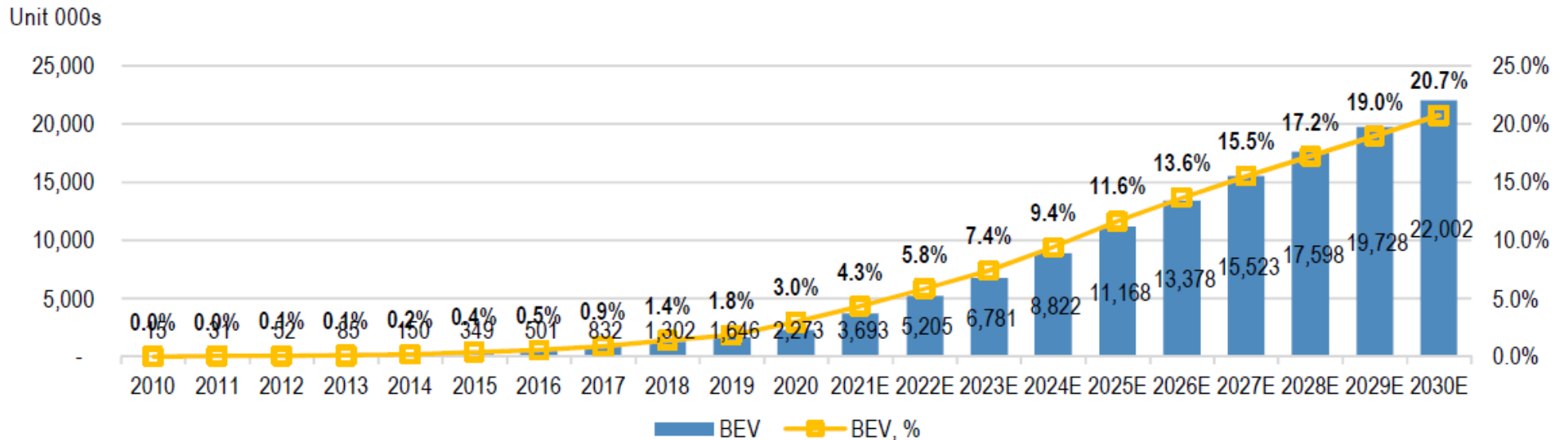
- **Strong growth in EV production** and demand, especially in Europe, with increasing Government incentives globally
- **Tesla announce** that they will manufacture own battery cathode to ensure ongoing supply, due to shortage of pre-cursor materials such as nickel
- **Indonesia ore** export ban locked in, but NPI volume increasing in-country to supply SS demand
- **Technology change to NCM 811** which requires higher quantity of nickel, gaining market momentum
- **Jinchuan** (largest nickel cathode producer in China) increasing nickel sulphate volumes

Estimated electrification impact per vehicle (avg NMC battery)

40-50kg <b>Ni</b>	50-75kg <b>Cu</b>
5-15kg <b>Co</b>	+ Cu for charging point + Cu for grid access



Figure 4: Global Passenger Vehicle BEV sales and adoption forecast



Source: Company data, J.P. Morgan estimates.

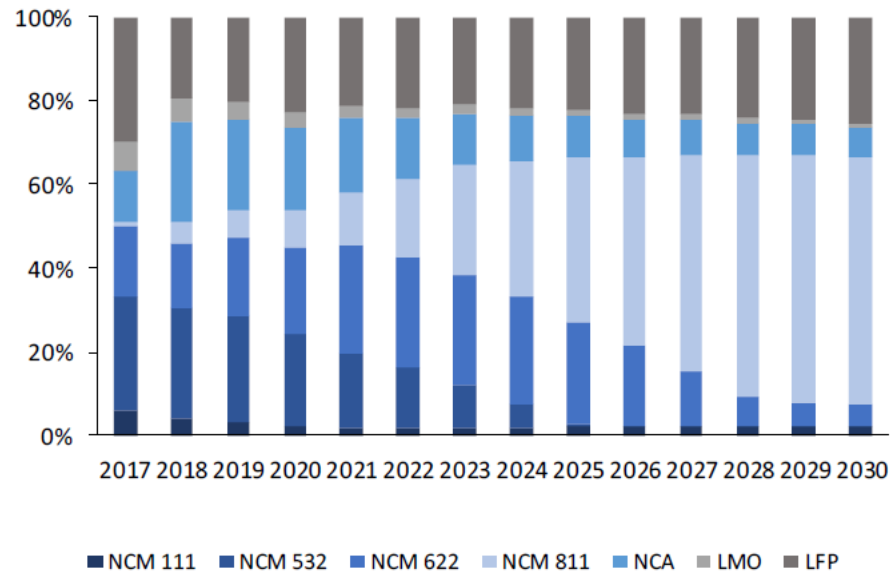
# The future – EV demand for nickel

- Research indicates NMC 811 will be the fastest growing battery combination by 2025. Significant incremental nickel demand. BMW iX3 SUV launched with an 811 NCM battery
- Tesla announce;** "Musk said Tesla's new, larger 4680 cell design used cobalt-free cathodes with a high nickel content as it embraced a mine-to-battery approach to drive battery costs lower, increase manufacturing efficiencies and accelerate the world's transition to sustainable energy"
- Forecast for cost parity between ICE and BEV to take place by 2023-2024 for mass production EV segments**
- VW announced its Zwickau Plant** — currently the world's largest automotive plant — produced its last car with a combustion engine

## MARKET SHARE

BY TYPE OF CATHODE MATERIAL

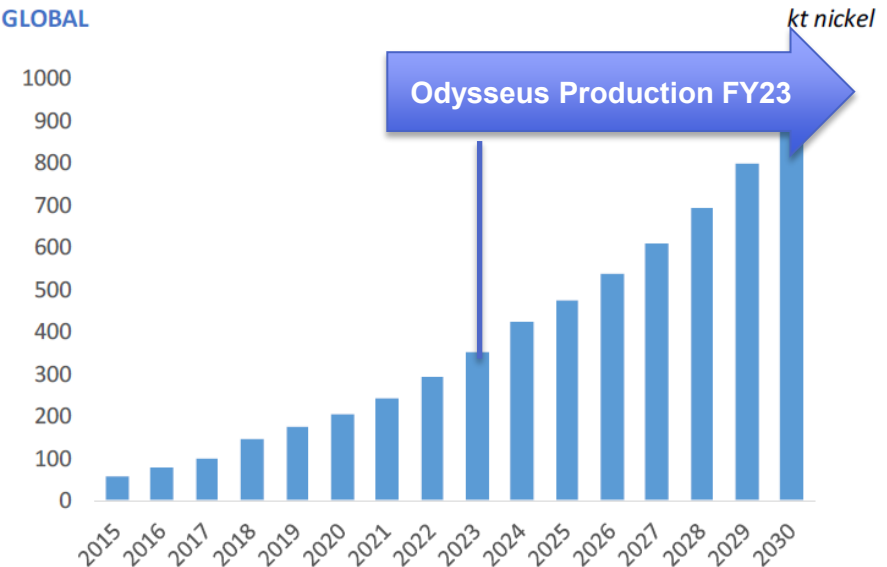
Stated as % of the market



Source: Trafigura Research, SMM

## NICKEL DEMAND IN BATTERIES

GLOBAL

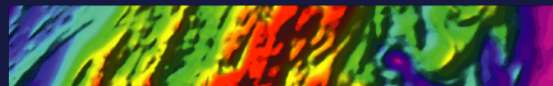


Source: Trafigura Research, SMM, CIAP – March 2020





**WESTERN AREAS LTD**



**20**  
**YEARS**

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